

CITIZENS TELEPHONE COOPERATIVE

DISASTER PLAN GUIDELINES
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DISASTER PLAN GUIDELINES

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Fire Protection Requirements

I. Prevention

1. Purpose

- 1.01 The purpose of these prevention guidelines is to establish recommended minimum fire prevention requirements for present building, additions and new buildings either owned or leased.

2. General

- 2.01 Fire safe construction requires that consideration be given to construction materials, structural assemblies, occupancy factors, automatic fire protection, exit facilities, outside exposures, public fire protection, access for fire fighting and limitations imposed by building codes.

3. Administration

- 3.01 All requirements established by Citizens Telephone Cooperative should be based on standards set by the Occupational Safety and Health Act (OSHA), National Fire Protection Association (NFPA) and the United States testing and approval agencies.
- 3.02 Authority of the State and Local Ordinance having jurisdiction within the property area may dictate a deviation of these standards.
- 3.03 Citizens Telephone should coordinate efforts with the local fire departments to establish procedures to assure fire protection of property and employee safety. These procedures should be reviewed annually with the local fire departments.
- 3.04 Company personnel should assist the local fire protection agencies in providing them with power prints when requested, showing locations of main switches, floor plans, standby power generators, fluid cutoffs or other information that would be pertinent to the safeguarding of telephone company property.
- 3.05 It will be responsibility of the Central Office personnel to conduct building inspections and issue inspection reports annually. Departmental Managers will train employees concerning fire prevention, conduct fire drills and enforce the fire prevention practice within the company.

4. General Construction

- 4.01 This section applies to new construction, including additions, and should be used as a guide for existing structures.
- 4.02 All construction plans and specifications concerning new buildings and additions should conform, in general, to the following outline, prior to taking bids.
- 4.03 Location Exposure: The property location should be carefully selected to minimize hazards from external sources such as fire and flood. When such exposures exist, information concerning the same should be indicated on the plot

plan. In such cases, it may be necessary to provide added protection such as blank masonry walls or wired glass windows in metal frames, etc....

- 4.04 Walls, Partitions, Floors and Roof: All new buildings and additions to existing buildings will be non-combustible construction. Rented buildings should be non-combustible construction.
- 4.05 Ceilings: Ceilings constructed on combustible acoustical tiles are major hazards, especially when installed above switchgear and main frames. The easy ignition of such tiles contributes to rapid spread of heat and to excessive smoke and flame. All new ceiling tiles must be UL listed. While there are many listed tiles on the market, ceiling tiles for use in telephone properties should have a minimum rating of :
 - a. Flame Spread: 0-25
 - b. Fuel Contribution: 0-25
 - c. Smoke Developed: 0-25

Existing combustible ceilings should be replaced or covered with a fire retardant material.

- 4.06 Vertical and Horizontal Openings: While building code requirements and NFPA No. 101, Life Safety Code, set forth minimum requirements for safety of occupants, they may in some ways be less than needed to confine fire to the floor or area of origin. In such cases, increased protection for horizontal and vertical openings is recommended to preserve the fire-spread barrier.
- 4.07 Insulation, polystyrene or other combustible insulation should not be used unless adequately protected from exposure to open flame.
- 4.08 Fire doors: UL labeled and/or accepted fire doors should be used for the protection of horizontal and vertical openings. NFPA pamphlet No.80, Installation of Fire Doors and Windows, gives minimum requirements for the installation of approved doors, windows and shutters, as well as, details on how the openings should be constructed. Dependent upon conditions and the susceptibility of occupancies to fire, smoke and heat damage. This minimum may need to be increased.
 - a. Classification of Fire Doors and Assemblies
 - 1. Class A - Protects openings in walls separating buildings or dividing a single building into fire areas. Doors for the protection of these openings have a fire protection rating of 3 hours.
 - 2. Class B - Protects openings in enclosures of vertical communication (stairs, elevators, etc.) and openings in fire partitions. Doors for the protection of these openings have a fire protection rating of 1 or 1.5 hours.
 - 3. Class C - Protects opening in office corridors and room partitions. Doors for the protection of these openings have a fire protection rating of ¾ hour.

4. Class D - Protects openings in exterior walls that are subject to severe fire exposure from outside the building. Doors and shutters for the protection of these openings have a fire protection rating of 1.5 hours.
 5. Class E and F - Protects openings in exterior walls that are subject to fire exposure from outside the building. Doors, shutters, or windows for the protection of these openings have a fire protection rating of $\frac{3}{4}$ hour.
- b. There are many occasions in which a vision panel in a fire door is needed. (Panels are not provided in 3-hour doors for Class A opening, 1.5-hour doors or Class D openings, nor in rolling steel doors.) Vision panels should be of wired glass not exceeding the following dimensions in the classification of door openings as indicated.
 1. 1296 sq. inches - Class C
 2. 720 sq. inches - Class B
 3. 100 sq. inches - Class B - (Total area for any Class B door opening)
 - c. All fire doors should be either self-closing or automatic closing to form an effective barrier against heat and smoke. Automatic closing doors will be equipped with an approved door closing mechanism. Fusible link operated doors are not suitable for use where a door is intended to restrict movement of smoke.
 - d. Field Installations often involve deviations from door and frame assemblies that have been tested, nullifying the label and resulting in an installation of questionable value. Such unacceptable deviations can be summarized by the following "Don'ts":
 1. Don't install louvers of any kind in a fire door
 2. Don't undercut a fire door.
 3. Don't use any hardware (latches, closures, hinges, etc.) that was not shipped with the door or labeled as suitable for use with it.
 4. Don't use any frame but a labeled frame.
 5. Don't change the method of anchoring the frame.
 6. Don't cut a fire door to install frames for glass.
 7. Don't consider a solid-core flush wood door the equivalent of a fire door (solid-core wood flush doors offer much less than 30 minutes protection).
 8. Don't accept statement, "I can provide you with a door of the same construction as a labeled door for a lot less money."

9. Don't visualize a fire door as a heavy, ungainly metal monstrosity. There are attractive fire doors on the market to fit any type of door.
 10. Don't block or hold fire doors open other than by use of electronic automatic door openers.
- 4.09 Exits: As a minimum, all exits should be designed, located and constructed in an accordance with applicable requirements of NFPA pamphlet No.101, Life Safety Code and local and state codes.
- 4.10 Fire Protection Measures: The following safeguards should be taken during any construction or alteration:
- a. The general contractor is required to take all necessary precautions to eliminate possible fire hazards and to prevent damage to any construction work, building materials, equipment and other property, both public and private, involved in or adjacent to the project.
 - b. Paint, paint thinners, gasoline, oil or any other flammable liquids should not be stored within telephone properties under construction. If flammable materials, must be stored upon the construction site, they will be stored in a fire resistive area designated by the company individual responsible for the overseeing of the construction.
 - c. All combustible debris will be removed from inside buildings at the close of every workday.
 - d. Fire extinguishers of a proper type will be strategically placed and adequately identified, in accordance with OSHA regulations, to protect an entire project against fire during the construction period.
 - e. Cutting and welding operations should be discouraged. However, if unavoidable, they should be performed in strict accordance with requirements of NFPA Pamphlet No.51B, Cutting and Welding Processes.
 - f. In all such cases involving cutting and welding in existing buildings, an employee, acting as a fireguard, must be present with a fire extinguisher. Experience indicates that this hazard cannot be controlled by delegation of the responsibility to a contractor. Use of a cutting and welding permit is required.

5. Building Equipment

- 5.01 This section applies to new construction, including additions and should be used as a guide for existing structures.
- 5.02 Electrical Wiring and Equipment: Electrical fittings, materials and equipment other than telephone switching or test equipment must be UL listed. As a minimum, the installation and maintenance of electrical equipment, wiring, etc., should be in accordance with applicable requirements of the latest edition of the National Electrical Code and system practices.

- 5.03 Flexible electrical cords must be adequate to carry the amperage required and UL approved. Use only when a flexible connection is necessary, never for fixed wiring. Cords should be replaced as soon as they show appreciable wear.
- 5.04 Heating Equipment: Heating equipment and fuel tanks should be approved or accepted, UL listed or labeled, AGA approved or ASME approved, as the case may be.
- a. Gas fired heaters with less than 400,000 BTU's per hour input only need to be AGA approved.
 - b. Clearance between heat producing devices and combustible materials will conform to the applicable requirements suggested in NFPA Pamphlet No.89M, Heat Equipment Clearances.
 - c. Fire partitions and firewalls enclosing furnace or boiler rooms will have a minimum rating of one hour. Door Openings will be protected by appropriate fire doors.
 - d. Gas appliances and gas piping will be installed in accordance with requirements of NFPA Pamphlet No.54, National Fuel Gas Code. Particular attention should be given to the section covering venting of pressure regulators. While venting to the outer air is approved by this pamphlet, the preferred method of disposing of gas in the event of a diaphragm rupture is to install bent piping adjacent to a constant burning pilot light in the combustion chamber. This type of installation eliminates the possibility of water collecting in piping and stoppage of the orifice by insect and foreign matter.
 - e. Gasoline will be kept in a FM or UL approved safety can with five gallons or less capacity. Not more than five gallons of gasoline will thus be stored.
 - f. Bulk gasoline, propane tanks, hydraulic fluid, explosives, etc., will be stored outside or in a metal shed.
- 5.05 Blower and Exhaust Systems: Mechanical draft duct system, both exhaust and pressure type, used for the removal of smoke, dust, vapors, etc., can create a hazard if the materials being removed are allowed to accumulate in the ducts, e.g., grease associated with cafeteria operations. Such accumulations can result in a flash fires. The installations of blower and exhaust systems should, at a minimum, be in accordance with requirements of NFPA Pamphlet No.91, Blower and Exhaust Systems, and NFPA Pamphlet No.96, Vapor Removal Cooking.
- a. Location of Equipment - The air conditioning equipment of a central system (fans, etc.) should be enclosed by walls with a minimum fire rating of 1 hour.
 - b. Air Intake and Outlets - Where forced air intakes could draw in flame and smoke from an adjacent exposure, automatic fire dampers will be installed.
 - c. Emergency Lighting Facilities - Emergency lighting will be automatic in operation and arranged to provide adequate exit illumination in the event of failure of normal building lighting.

6. Smoking

- 6.01 Smoking will not be permitted in cable vaults, warehouse storage areas, battery rooms, generator rooms, elevators, or areas in which combustible materials are stored.
- 6.02 Smoking will not be permitted in telephone or data processing equipment rooms. Smoking is prohibited adjacent to areas containing ionization (smoke) detectors where smoke may cause an alarm.
- 6.03 “Smoking” signs will be posted in areas where smoking is permitted. In areas where smoking is permitted, metal or fire resistive ashtrays will be provided. All Ashtrays should be of the style that holds the cigarettes in the center of the tray and the outer edge. Ashtrays should not be emptied into waste containers until cigarette or cigar butts have cooled or been doused with water.

7. Soldering Equipment

- 7.01 Soldering equipment should never be left unattended when in use and should be disconnected immediately when the soldering job is completed. A soldering iron left unattended or forgotten can become an excellent means for a fire to start. Soldering should be performed on a nonflammable surface whenever possible. Soldering equipment should also be allowed to completely cook before it is returned to storage.
- 7.02 Soldering should be kept to a minimum where smoke detectors or other fire detection/suppression systems are in use (e.g., in areas protected by the Halon system). If soldering in these areas is necessary, the detection/suppression system should be temporarily disabled and then enabled when the soldering has been completed.

8. Paper Storage

- 8.01 Extended retention of large amounts of paper, such as computer printouts, should be stored in cabinets or other metal/fire proof containers whenever possible. A paper fire can generate a considerable amount of heat, thus becoming a fire that can quickly spread.

II. Detection

- 1. It is important to recognize the distinction between automatic detection and early warning detection. Automatic detection simply means that manual alarming is not needed; it does not necessarily mean an immediate response to the initiation of a fire. Early warning detection, in this context, is a system that incorporates smoke detection; it does not necessarily mean a response to fire conditions before the human senses can detect the existence of a fire. The objective of early warning detection in telephone buildings is to identify hazardous conditions (generally characterized by a flaming fire) very quickly, while the less hazardous smoldering fire is identified in a reasonable period of time, so they may both be suppressed with portable extinguishers.
- 2. The dispersal of combustion products generated by a fire is affected by several factors. Some of them ore significant are particle size, rate of burning of the material, thermal

- convection currents generated by the overall heat liberated by the fire, and air movement. Air movement in the area is the most important factor influencing the products of combustion reaching the detector. If the fire is liberating considerable heat, as in a paper fire, the particles are driven upward at good velocities and other air currents exert less influence.
3. The recommendations in this section are based on the Fire Codes of the Fire Protection Association and Model Building Codes. All detail features of these source documents have not been covered herein; therefore source documents should be reviewed for complete details.
 4. Where local, state or Occupational Safety and Health Act (OSHA) regulations require higher degrees of protection, the legislated criteria should be followed.
 5. Classifications of Fire Detectors

5.01 There are basically three classes of fire detection devices:

- a. Thermal Detectors: The thermal detectors are devices designed to sense abnormally high temperatures, abnormal rates of temperature rise, or a combination of both. Rate of rise contact elements are generally self-restoring and fixed temperatures may be either self-restoring or non-restoring.
- b. Flame Detectors: The flame detectors are devices designed to sense rapidly developing fires with little or no incipient stage. These detectors sense infrared radiation emanating from flickering flames. The detectors have a built-in delay eliminating response to normal activities such as turning on lights.
- c. Smoke Detectors: These devices are designed to detect visible or invisible products of combustion. Smoke detectors may operate on the multiple chamber ionization principle (ionization type) or by a balanced forward light-scattering principle (photoelectric type).
 1. Ionization Type: The chambers are similar in dimension and material such that one chamber (the reference chamber) provides a standard voltage against a second chamber (the sensing chamber), which is offset by a nominal voltage (sensitivity voltage). On the entry of smoke into the sensing chamber, the offset voltage changes such that the resultant voltage difference between the chambers initiates an electrical signal to the control panel.
 2. Photoelectric Type: A pulsed LED source of fixed sensitivity is mounted in a sensing chamber such that no light is directly incident on a photocell sensor with the same chamber. Any smoke particles entering the chamber result in the forward scattering of light and its measurement by the photocell sensor.

6. Typical System Description

- 6.01 An early warning fire detection system can be a self-powered single detector unit for emitting an alarm or a multi-zoned system consisting of panel supplying power

to and continuously monitoring signals from identifiable groups of energized detector units.

- 6.02 Each system must have detectors that will sense presence of heat, flames, smoke or products of combustion. These detectors, often referred to as detector heads or simply “heads”, are located in the space to be monitored. The usual location is on the ceiling since heat, smoke or particles of combustion will rise. The devices are connected together in groups called zones. This grouping is to allow quick identification of the area of the alarm source.
- 6.03 When more than one detector is used, there will be a control panel. The control panel provides distribution of electrical power for the operation of the detectors and is a central point where all alarms may be displayed visually and operated audibly. Both fire alarm and trouble alarm signals are indicated and are provided with separate clearly labeled indicator lights. Control panels contain relays for controlling coding devices, transmitting alarms to remote locations, and/or to activate or deactivate fans, electric power, door releases, fire dampers, smoke dampers, etc., if desired.
- 6.04 Most systems will also have remote alarm lamps and/or remote annunciator panels. The lamps are used to identify, at visible locations, detectors that are not readily seen or are behind locked doors.
- 6.05 Schematics should be posted near the control equipment detailing the layout of the fire detection zones and system wiring. Each annunciator panel should have a schematic posted near it, indicating detector locations for that floor.

III. Protection/Suppression

1. Background

New materials and changing technology being introduced into the telecommunications industry have necessitated a need to reevaluate loss potential in these environments. For example, a fire in a comparatively small area can have widespread catastrophic effects on all equipment exposed to the contaminants given off from burning polyvinyl chloride insulation, a substance widely used in the telecommunications industry.

In central office buildings, all kinds of openings, both vertical and horizontal, exist that become hazards during a fire. The most common of these are for cable, electrical conduit, heat and air conditioning ducts, etc. Several steps should be taken to reduce the potential fire hazards that surround our industry. These include strengthening our fire protection standards, sealing floor and wall openings to reduce and spread of contamination, and elimination of all needless combustibles from central offices, battery rooms, and power generating locations.

The subject of fire stopping involves retarding the spread of fire and smoke and confining it to as small an area as possible. Fire-stops neither find nor extinguish the fire, however, they do limit the spread of contamination to areas adjacent to the fire. The relationship between the fire-stopping effort and its effectiveness in retarding the spread of fire and smoke depends on the materials used and how they are installed.

2. Central Office Building Requirements

2.01 General

Fire safe construction requires that consideration be given to materials, structural assemblies, occupancy factors, fire detection and retarding devices, surroundings, access to firefighting equipment and public fire protections. In as much as all of the above factors are interrelated, attempts to express them as standards necessarily cause oversimplifications. For this reason, the maximum in fire safe construction can only be obtained from a fire protection engineering analysis of the structure, occupancy and protection aspect of the building construction plans and specifications rather than by a literal application of rules which are bound to have exceptions.

2.02 Ceilings

All equipment room ceilings should be of noncombustible construction. Ceilings of combustible acoustical tiles are major hazards, especially when installed above switch-gear and distributing frames. The easy ignition of such tiles contributes to a rapid spread of heat and to excessive smoke and flame. All ceiling tiles should have UL listed fire ratings for CO use.

2.03 Walls

All walls and partitions separating equipment rooms from other occupancies should have a fire resistance rating of at least one hour. If windows are required in these walls, they should contain wired glass. All foot traffic openings to the switch-room should contain metal type fire doors with automatic closures installed.

2.04 All ductwork entering the equipment room should be protected with automatic closings fire dampers at the point of entry. Wall, ceiling and floor openings for such ducts should be sealed with the applicable material as described under paragraph four of this section.

3. Material Storage

Combustible items such as cleaning fluids, miscellaneous installation materials, etc., that are required in a central office must be stored in metal storage cabinets. All waste materials should be placed in flame resistant receptacles. The single most important fire prevention element in central offices is the attention given to good housekeeping practices.

No equipment should be stored within the central office except what is necessary to maintain a continuing work load. All empty crates, cartons, cable reels, etc. must be removed before the end of each work shift.

4. Sealing Vertical and Horizontal Openings

Sealing holes in floors, ceilings and walls through which conduits, cables, ductwork and piping pass have been a major concern of the industry, since fire protection methods were initiated. The need to effectively seal these openings is to confine hazards such as fire and smoke from penetrating adjacent areas of the building.

Over the years, several methods for sealing these penetrations have been attempted. The one currently being used most widely by the telephone industry is packing the openings with fire resistance mineral wool bags. The problem here is that this type of sealing usually leaves some gaps; thus, they do not provide an airtight closure.

The latest development for solving critical penetration seal problems is to apply silicone elastomer foams. These foams are injected into the dammed opening by specially designed dispensing equipment. The foam material quickly expands to approximately three times the volume of its liquid constituents to form an airtight, fire-resistant seal. As the foam is forced into the dammed opening it flows and swells to completely fill the interstices between the cable and the walls of the opening. Once the foam is cured, it maintains a pressure against the walls, cables and other structures.

The foam is non-toxic and non-allergenic both before and after curing. The material sets in three or four minutes after which the dams can be removed, if necessary and the foam is trimmed with a knife to make a smooth closure.

A special characteristic of this material is that it will form a tighter seal when exposed to high temperatures of fire due to expansion of the material within the closed cells of the foam.

5 Fire protection Equipment

5.01 Portable Fire Extinguishers

The following is a recommended standard that should be applied for fire extinguishers in the switch-room: Provide one 10 lb. (4.5kg) Halon extinguisher for each 900 square feet (84 sq. m) of floor space. (Distance to obtain not to exceed 50 feet (15m)). They should be located on walls adjacent to door openings and on building columns. They are to be used for extinguishing small fires in electrical equipment. Maintenance of carbon dioxide extinguishers can cause a migration to Halon, which is the recommended and preferred type.

5.02 Automatic Fire Protection Equipment

Recently, several telephone companies began installing ionization-products of combustion type detection and alarm systems to provide early warning of any developing fire condition. Along with these systems came the increased pressure from the insurance underwriters for installation of automatic protection for telephone equipment buildings. The greatest need is for an effective fire control method that is compatible with telephone industry needs. The FM-200 flooding system is an excellent and recommended suppression system. The agent, which is stored under pressure as a liquid, vaporizes upon release to inert the area. It extinguishes fire by chemical reaction rather than cooling or oxygen displacement.

In all test cases using the ionization-products of combustion type detection and alarm systems, extinguishers was less than two seconds after agent discharge. There was no damage to representative samples of switching equipment exposed to the fires. These tests clearly indicated that FM-200 was fast and ideally suited for protection of switching equipment. The agent has the particular advantage of being

capable of getting to the source of fire where water could not reach, as well as being non-corrosive and not displacing oxygen to any degree that is harmful to people.

The experience with actual equipment fires and the data obtained in the mock-up test program provide some sharp comparisons between protection systems.

- a. Modular FM-200 Systems are much easier to install than pipe systems.
- b. No service interruption in the event of accidental discharge.
- c. FM-200 does not contribute to damage in extinguishing a fire in telephone exchange environments.
- d. FM-200 vapor can get to sources of fire in equipment that water cannot reach.
- e. There is no residual after discharge of the agent such as exists with water. FM-200 would be of particular value in multiple story equipment buildings where water could damage equipment on several lower floors.
- f. The systems are cost competitive.

It should be noted that there are many applications, such as office occupancies, warehouses, emergency generator rooms, furnace rooms, central office basements, garages, etc., where water is the ideal protection medium. However, for equipment areas and computer rooms, there is strong evidence that it is better to use Halon or FM-200 flooding systems.

6. Disabling of FM-200 System

There could possibly be times when the FM-200 system used in the switching room might need to be disabled due to false activation or equipment malfunction. All employees should be familiar with the proper operation of the FM-200 system. If an employee is unsure of how to disable the system, then a review should be arranged between the employee and a central office technician. It will be a responsibility of the person who disabled the system to make sure that it is again enabled at the appropriate time.

7. Disconnecting of Commercial Power

During a fire or other emergency, it may be necessary to disconnect the commercial power (AEP). Commercial power for the entire complex at 220 Webbs Mill Rd is distributed via the main power distribution panel located in the power room in the basement of the main building. Complete powering down of the entire complex can be accomplished by operating the main disconnect located on the Main power distribution panel. The main disconnect is labeled "MAIN SWITCH/SERVICE DISCONNECT". To disconnect the power to the Central Office Building only, operate the disconnect switch labeled "AST#2". To disconnect the power to the Warehouse only, operate the disconnect switch labeled "W1".

The standby generators should also be disabled in order to accomplish total disconnection of power from the complex. The generators can be disabled by opening the side access door of each unit and placing the run/auto switch in the off/reset position.

8. Disconnection of Switching Equipment Power

During a fire or other emergency, it may be necessary to disconnect the DC power (batteries) from the switching equipment. A central office technician or other qualified employee should perform this procedure. All central office employees should be well acquainted with the proper power down procedure of the switching equipment.

9. Response to a Fire Alarm

- 9.01 The Floyd County Sheriff's Office has been instructed to call the following people in the event they receive a fire alarm call from one of the Citizens Telephone's alarms.

8:00 a.m. - 6:00 p.m. - Citizens Telephone Cooperative

	<u>Employee</u>	<u>Number</u>
After Hours:	Jerry Sutphin	745-9508
	Greg Sapp	745-9549
	Dennis Reece	745-9528
	Chris Bond	745-9556
	Robert Weeks	745-9559
	Lori Saltus	745-9568
	Trish Poole	745-9553
	Kerri Williams	745-9502

The Sheriff's Office should immediately contact an employee of Citizens Telephone. If unsuccessful, the Sheriff's Office then should dispatch the Fire Department. The Fire Department should use caution and avoid spraying water on electronic switching equipment unnecessarily.

10. Response to a Fire

- 10.01 Get yourself and anyone else in immediate harm's way to safety!
- 10.02 Notify additional help, sound the alarm, and summons the fire department! Call 911!
- 10.03 Help your fellow employees and customers or guests! Get everyone out of the building! Account for Everyone!
- 10.04 Close doors wherever possible to slow or reduce the spread of smoke and fire. If you can turn the key and stick it in your pocket or pick up the handbag sitting at your feet fine, but MOVE, don't lose escape time by trying to recover personal belongings or protect cash drawers, leave them, MOVE!
- 10.05 Only After the Above

- a. Assess the availability of firefighting tools and be realistic about your abilities.
Without the proper firefighting tools and similar experience, you only place yourself and others in jeopardy. Be aware that smoke kills more people in an enclosed area or building where there is a fire. Don't risk being rendered unconscious by smoke.
- 10.06 Cooperate with the fire department and stay out of their way. Do NOT re-enter the location until authorized by the fire chief or his representative.
- 10.07 If the employee is in a remote location, i.e. Ballard, EVACUATE!!! CALL 911!!! CALL HELP!!! USE YOUR CELLULAR PHONE!!! GET OUT!!!
- 10.08 The company will periodically test of fire emergency response efforts and times. These tests may be announced or unannounced and may involve coordinated test with emergency response teams like the fire department. Employees are expected to respond as if the emergency did exist and to enlist the cooperation of any guest or customers on the premise when such drills are enacted. An orderly evacuation is in order whenever a drill is conducted. Select positions may be instructed to complete certain task prior to evacuation. i.e. locking cash drawers, etc.
- 10.09 The designated gathering spot upon evacuation is the employee parking lot adjacent to the Drive Thru window. If that spot is rendered unusable because of the event or operations to control the event, the gathering will move to the large gates near the Central Office building. The manager or designated team leader will gather each team to account for everyone. If anyone is missing from a group, the team leader will notify a manager or the fire chief. Under NO circumstances should employees return to the building to search for a missing member. All employees should gather as quickly as possible for the head count so there is no unnecessary concern when you are out of the building.

Response to Emergencies

I. Response to Medical Emergency

1. **CALL 911!!!** We can always thank them and be glad they were not needed, later.

II. Response to Other Emergency Situations

1. **A robbery, a gunman on the Premises, Clear and Immediate Danger**
 - 1.01 If you are directly confronted and involved **COOPERATE**. Give the perpetrator anything demanded if you have it. The goal is to get them out of the building without endangering anyone.
 - 1.02 **DO NOT CALL OTHERS** into the situation if it can be avoided. If the demand is to see someone specific and the perpetrator allows you to use the phone, call an extension where someone is likely to be but do not talk. Instead tell the perpetrator that there is no answer and then leave the handset active so the other end can hear what's going on. Your remarks to the perpetrator can clue the listener, but don't risk aggravating the situation by talking too much. It may be possible to call 911 at the extension if you are not being watched too closely. If in doubt, don't attempt anything just cooperate and follow instructions. The perpetrator is in control.
 - 1.03 Don't be a hero. Cooperate until you can escape.
 - 1.04 If you are not directly involved, you may still not be in a position to leave or assist. If you are trapped up front and there is no way to escape, get under or behind anything available to conceal your presence or offer some protection. A phone off the hook dialed to 911 may assist but do not attempt to talk if there is a possibility of aggravating the situation. That's 9-911 from Centrex. If you are on the phone when an event occurs and you're ordered to shut up or hang up, leave the call on line if possible. Any outside recognition of trouble may come to our assistance. Escape at any opportunity; seek safety first.
 - 1.05 If you are outside the immediate danger area and are aware of the situation, notify others; evacuate the building; and **CALL 911**. Keep others from entering the danger zone if possible.
 - 1.06 **GET OUT!** Assume the perpetrator will enter the remainder of the building and take hostages. Get out. You are not in control. When the police arrive they are not in control, anything can happen as long as the perpetrator is in control. Seek safety; if that means leaving the complex, meet at the courthouse to assist law enforcement, regroup, debrief.
 - 1.07 The front reception area, which is a more likely point of contact, has lots of glass looking out at the street and parking lot. In escaping, move or stay away from these exposed areas, bullets penetrate glass and you do not want the perpetrator to know what is happening outside their view. They will be aware of the police arrival on the scene some time before the police can negotiate the driveway and parking lot to the rear entrance.

- 1.08 Think before you react.
- 2. Response to a Bomb Threat
 - 2.01 Take it seriously. Notify a supervisor. Institute a drill and evacuate the building if the threat is against a manned location.
 - 2.02 CALL 911.
 - 2.03 Remain clear of the building until a thorough search has been conducted and the police officers have given an okay to return.

Security Requirements

I. Prevention

1. Purpose

- 1.01 The purpose of these guidelines is to establish recommended minimum-security requirements for present building, additions, and new buildings either owned or leased.

2. General

- 2.01 Because of the easy access to our facilities by the general public, it is necessary to provide building security. This security is necessary for several reasons: confidential information, theft/other criminal action, vandalism, insurance and the safety of the general public.

3. Administration

- 3.01 Warehouse/Maintenance Building: This building will be locked when left unattended.
- 3.02 Main Building: The rear entrance doors and the basement side door will be left locked at all times. Please re-lock if it is necessary to unlock.
- 3.03 COE: Both doors to this area should be locked after 5:00 p.m. and at all other times when the building is unattended.
- 3.04 All visitors/salespersons will check in at the front office. Employees will have to pick up and return visitors to the front office.
- 3.05 All visitors will be restricted from the COE unless accompanied by an employee and this will need to be kept at a minimum.
- 3.06 Rear gates will be locked anytime the premise is unattended and after 5:00 p.m. during the week.
- 3.07 Employees entering the facilities after regular working hours are responsible to see that no damages occur by themselves or others.

Disaster Prevention Requirements

I. Prevention

1. Purpose

- 1.01 The purpose of these prevention guidelines is to establish recommended minimum prevention requirements against natural or manmade disasters. These requirements apply to present building, additions, and new buildings either owned or leased.

2. General

- 2.01 While for the most part disasters are unpredictable and uncontrollable, there are some precautions that can be taken to lessen the severity or probability of a disaster.

3. Administration

- 3.01 Location Exposure: The property location should be carefully selected to minimize hazards from external sources such as fire and flood. When such exposures exist, it may be necessary to provide added protection, such as blank masonry walls or wired glass window in metal frames, or any other precautions that would guard against the possibility of a disaster.
- 3.02 Company personnel should be watchful and mindful situations that could result in damage to company property or harm to employees e.g., hazardous traffic situations around company buildings, potential dangers due to other utilities (water, power, CATV, etc.). These potential “disasters” should be reported at once.
- 3.03 In order to be prepared for recovery after a disaster, there should be an updated written plan of recovery. This plan should include a list of suppliers, power company contacts, list of additional manpower and any other pertinent information that would be useful in implementing a speedy recovery. This plan of recovery should also be included as part of this document.

Protection Against Loss of Data

- I. Prevention
 - 1. Purpose
 - 1.01 The purpose of these prevention guidelines is to establish recommended minimum requirements for the protection of critical central office switching equipment and data processing data.
 - 2. Administration
 - 2.01 A written plan/procedure should be developed and implemented to assure a constant backup of all critical data. This plan should include a detailed step-by-step procedure as well as a time schedule to follow when performing backups. It is further recommended that the backup data be tested periodically to confirm its validity.
 - 2.02 This plan should be overseen and verified that it is implemented on the time schedule stated by the Departmental Managers.
 - 2.03 Backup copies of data should be stored, whenever possible, in a different building separate from the location of the actual active data that is being used.
- II. C15 Switch Backup Procedure
 - 1. The C15 is automatically backed up daily to a server in the basement of the main building.

Surveillance

- I. Ionization type detectors have been installed in all buildings that house switching equipment. Remote dialers have also been installed in each of these locations.
- II. In order to assure that each alarm system is functional, they should be checked for proper operation monthly. This test should include a batter check of the remote dialers as well as a functional test of the detectors. It will be the central office technician's responsibility to check

the alarms in his assigned offices. A written record of the monthly checks should be made any problems or failures reported and corrected.

Recovery

- I. Recovery from a disaster is far more expensive than prevention, detection or suppression. It usually involves purchasing additional materials, using additional manpower and dealing with irate customers. Telecommunications services are a must in maintaining the health, welfare and

prosperity of Citizens customers. Our restoration plan includes some general guidelines as well as specific guidelines for direction to a prompt recovery.

1. Resources

1.01 Outside Plant Materials

- | | |
|-----------------------------|--------------|
| a. KGP | 800-755-1950 |
| b. Power & Telephone Supply | 800-438-2914 |
| C. Graybar Electric | 704-602-7003 |
| D. Walker & Assoc | 800-297-2293 |
| e. State Electric | 800-874-7856 |

1.02 Mobile Central Offices

- | | |
|--------------------------|--------------|
| a. Ribbon Communications | 866-436-2263 |
|--------------------------|--------------|

1.03 Central Office Equipment

- | | |
|--------------------------|--------------|
| a. Ribbon Communications | 866-436-2263 |
| b. Adtran | 888-423-8726 |
| c. Innovative Systems | 605-995-6120 |
| d. Calix | 877-766-3500 |

1.04 Power and Battery Equipment

- | | |
|-----------------------------|--------------|
| a. Direct Power | 704-263-5953 |
| b. Reltec/Marconi | 800-978-8810 |
| c. Sprint North Supply | 800-326-8754 |
| d. Power & Telephone Supply | 800-438-2914 |

1.05 American Electric Power Contacts

- | | |
|--------|--------------|
| a. AEP | 800-956-4237 |
|--------|--------------|

1.06 Generators

- | | |
|---------------------------------------|--------------|
| A. Scott County Telephone Cooperative | 276-452-9119 |
| B. Carter Machinery | 800-228-7971 |

1.07 Fiber Optic

- | | |
|-----------------------------|--------------|
| a. North Supply | 800-326-8754 |
| b. Power & Telephone Supply | 800-438-2914 |

1.08 All employees may be required to work long hours during a natural disaster or any situation determined by the State or Federal Government that would require all employees to work an unspecified length of time. No employee is allowed to work more than 16 consecutive hours and then must take off 8 before returning. Central Office employees will stagger their hours so two will be on the job at all times. In order to expedite recovery from a disaster, it may be necessary to bring in outside assistance. Every effort will be made to restore telephone service as quickly as possible.

1.09 Manpower

a. Scott County Telephone Cooperative	276-452-9119
b. Penn Line	412-887-9110
c. Bartlett	540-343-9376
d. Pembroke Telephone Cooperative	540-626-7111
e. Skyline Membership Corp	800-759-2226
f. Surry Telephone Corp	336-374-5021
g. Yadkin Valley Telephone Corp	336-463-5022

II. Restoral Priorities

1. Customers can become furious if the recovery appears to be stalled or unduly delayed. The Primary components of a recovery plan are guidelines for quickly restoring service to emergency agencies, providing temporary service to as many customers as possible, and expediting permanent service restoration. Emphasis will be placed on restoring long distance service first.

2. Priority Customers

- 2.01 Rescue Squads
- 2.02 Fire Departments
- 2.03 Law Officials
- 2.04 Hospitals/Clinics
- 2.05 Doctors
- 2.06 Nursing Homes
- 2.07 Medically Dependent Customers

BOWER, MELBA	5407453588
BRADBURY, ALICE	5407452336
COX CONSTRUCTION	5407897280
DALTON, SHIRLEY	5407892000
DEHART, MILDRED	5407453412

DICKERSON, DIANA	5407897818
FOTI, JANICE	5405932150
GALASZEWSKI, LAUREL	5406514874
GALLIMORE, CHARLES	5407632647
GREEN, MARTHA	5407453998
GRIFFITH, JANE	5407453049
HILL, OPALENE M	5407452724
HOLLANDSWORTH, MABEL	5407894368
INGRAM, ELVIN	5407453106
JANNEY, MARY	5406513161
KEYES, GARRY	5407895657
LIVESAY, TED	5407453659
MANNON, ALMA	5407632481
MARSHALL, ANTHONY	5407458066
MINNIX, TRENA	5406513975
MOLES, ALVIN	5405932055
NESTER, ROBERT	5407452363
OEHMAN, JOHN	5407897875
PHILLIPS, ORLAND	5407894349
QUESENBERRY, VIRGINIA	5407897116
RUTROUGH, NADINE	5407453163
SHELOR, DARCIE	5406513410
SHORTT, ROGER	5407453068
SPANGLER, NANCY	5407452198
SUMNER, FAYE	5407453603
TURPIN, BUDDY	5407897764
DANIEL BOARD	5406513551

- 2.08 School Systems
- 2.09 County Government
- 2.10 American Electric Power
- 2.11 Business Customers
- 2.12 Residential Customers
- 3. Wire Center Priorities
 - 3.01 Floyd
 - 3.02 Locust Grove
 - 3.03 Willis
 - 3.04 Alum Ridge

- 3.05 Ballard
- 3.06 Indian Valley
- 3.07 Terry's Fork
- 3.08 Topeco
- 3.09 Fairview
- 3.10 Check
- 3.11 Pizarro
- 3.12 Little River
- 3.13 Possum Hollow
- 3.14 Burks Fork
- 3.15 Duncan's Chapel
- 3.16 Simmons Grocery

III. Disaster Notification

1. During major outages, customers must be kept informed of the status of their phone service. Clearly inform them of the number of lines affected, number of workers working, and an estimated number of days until all services are restored. This will not help speed up restoration, but it will make Citizens look more responsive. Keep them informed on any progress and of temporary communication facilities that they have access to.
2. Notify the following:

2.01	Fire and Rescue	911
2.02	Law Officials	911
	a. Sheriff's Office	911
	B. State Police	800-542-5959
2.03	County Government/County Admin Office	540-745-9300
2.04	Nursing Homes	
	a. Skyline Manor Nursing Home	540-745-2016
2.05	Hospitals and Clinics	
	A. Floyd Family Clinic	540-745-5700
	b. Carillion Family Medicine	540-745-2031
2.06	VTIA	804-643-0688
2.07	SCC	804-371-9967

2.08 Connecting Companies

a. Verizon

800-863-0977

b. Century Link

877-492-8598

IV. Safety

1. During a disaster, employees often get pressured by the customer to restore service as soon as possible, thus causing them to short cut quality and to work under unsafe conditions. Each Job must be performed in such a way as to insure personal safety and the safety of others.

APPENDIX

APPENDIX

FM-200 Fire Protection System Operation

Normal – In the normal standby condition, all yellow and red indicators will be off. Only the green “AC Normal” indicator will be lit.

Trouble – A yellow “Trouble” indicator at the front panel will annunciate any system trouble. A local audible buzzer within the control system will sound.

Alarm – An initiating circuit (zone) alarm will be annunciated by a steady red indicator at the front panel.

Release – Activation of release circuit will be annunciated by a steady red indicator at the front panel.

Reset – To reset the system, unlock and open cover. Momentarily operate (push) the “Reset” switch. (Located on lower right-hand side of control board)

Alarm Silence – To silence the alarm circuit, unlock the cover and open. Momentarily operate (push) the “Silence” switch.

Release Disable – To disable the system from releasing the FM-200, press the yellow switch located below the Control Panel and then follow the “Reset” procedure above. This disable procedure must be performed within 15 seconds of the actual alarm indication.

Connecting Carrier Numbers

Christiansburg Carrier	540-382-9979
Blacksburg Carrier	540-951-9914
Radford Carrier	540-731-9773
Radford Switch	540-731-9774 or 540-639-9975
AT & T POP Blacksburg	540-951-3313
AT&T Salem	540-342-3483
AT&T Switch Message Trunk	800-662-6895
AT&T OSPS Trunks	800-662-6895
Valley Net Office Blacksburg	540-552-8606
Valley Net TAC Center	800-323-0457
Stuart Central Office	540-694-4111
Martinsville Central Office	540-632-9109
Rocky Mount Office	540-483-0243
VA Tech Switch	540-231-3915 or 231-3917 or 231-6000

SS7 Office Numbers

Troutville STP	540-992-2907
Waynesboro STP	540-942-7099

Rockhill STP	803-324-5600 or 800-869-7225
Mattoon STP	217-258-9766
Illuminet 24 hr.	800-869-7225
Illuminet Data Base	360-493-6000
Illuminet Service Rep.	360-493-6000
Siemens SCAT	407-942-5611

Service Disruption or Repair

24 hours/7 days

The Technical Support Administrative Assistant answers calls during business hours. 800-741-0925 (After hours, this line is forwarded to the Technical Support Hotline).

All trouble calls should be placed to this number and a trouble ticket will be opened.

Technical Support Hotline

24 hours/7 days

Calls are answered by a Technical Support Shift Leader. 800-741-0925

All calls to this line are for ISP callbacks. Dial-in customers who are being referred for an ISP callback should have already called in to Technical Support and have not had their problem resolved.

Switch or Carrier Problem Numbers

The following numbers should be used on the weekends or after normal hours for assistance from AT&T or Verizon.

Carrier related problems:	Roanoke Route	FMAC 804-772-5195
	Christiansburg Route	NTC 540-857-9950
Switching related problems:	Verizon	NTC 540-857-9950
	AT&T	800-662-6895
Special circuit problem (Verizon)		800-624-8286

The following numbers should be used to contact Sprint/Centel for any trunk, special circuit, or fiber problem.

Sprint TAC Center	888-230-4404
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The following numbers should be used to contact GTE Mobile Net for local trunks or DS1 problems:

GTE Mobile NET 24 Hr.	800-621-2622 (select option 3)
Valley Point Parkway MSO	540-265-5963
Mike Hester (Mobile)	540-520-7009
Kirk Terry (Mobile)	540-529-7005

Citizens InterNET Special Circuits

Sprint

Hillsville ISDN PRI – CKT ID#	60.IPSD.244962..UIMN 60.IPSD.244963..UIMN
To Report a problem contact Sprint/United at	800-733-0104
Hillsville to Floyd T1	CKT ID# VN410101
To Report a problem contact Valley Net at	800-825-9638
Rocky Mount to Floyd T1	CKT ID# 60.HCDT.212762..CEVA
Rocky Mount Access T1	60.IPSD.300274..CEVA 60.IPSD.303313..CEVA 60.IPSD.303314.CEVA 60.IPSD.303315..CEVA 60.IPSD.361821..CEVA
To report a problem contact Sprint/Centel	800-304-7628

Verizon

Pulaski T1	CKT ID# 44HCGA 275986
Pack Place T1	CKT ID# 44HCGA 278289
Pointe West 56K	CKT ID# 44XHGA 278290
To report a problem or outage to Verizon	800-624-8286
Billing account name is “Citizens Telephone”	
Billing account number is	540 J44-9938 303

Pulaski ISDN PRI

To report a problem with the Pulaski ISDN PRI’s call 1-800-624-8286. When they request the circuit ID#, give them the main telephone number for the service which is 540-980-2682.

Contact Phone Numbers

Central Office

<u>Employee</u>	<u>Cellular #</u>
Dean Wood	540-230-2427
Jay Conner	540-230-7910
Matthew Cox	540-230-2209
Michael Herring	540-267-6912
Tera Hale	540-239-1980
Jeff Belshan	540-230-7904
**Neil Bolt	540-239-5824

Broadband/Plant Maintenance Technicians

<u>Employee</u>	<u>Cellular #</u>
Gary Biggs	540-250-7393
Jamie Cooper	540-250-0785
Keith Poole	540-230-4168
Brandon Quinn	540-285-0757
Tom Swanson	540-267-4237
Dillon Wood	540-577-5384
Gary Young	540-285-0757
Rocky Huff	540-285-0755
**Brandon Quesenberry	540-230-7907

Ft Chiswell Technicians

<u>Employee</u>	<u>Cellular #</u>
Heath Moore	540-230-6757
Todd Henley	540-835-3131
**Keith Blair	540-230-2951

Engineering

<u>Employee</u>	<u>Cellular #</u>
Eddie Bower	540-239-8248
Dexter Wood	540-267-6756
Chris Brevard	540-230-6949
**Russell Janney	540-230-7905

Fiber Technicians

<u>Employee</u>	<u>Cellular #</u>
Curtis Stanley	540-230-7903

* Person on call can be reached at these numbers

** Manager

Fiber Cut Emergency Procedures

Use Fiber Optic Network Fault Location Checklist to pinpoint the problem. If the problem is found to be a cable fault:

1. Be sure that the light source is removed from the damaged cable.
2. Obtain an estimated footage to the fault.
3. Route a repair technician to locate the fault.
 - a. Once the fault is found, the technician should begin locating all cable in the area around the fault.
 - b. The repair technician should notify the control center of the extent of the damage. Is the copper cable damaged? Is the fault in a blind curve?
4. Designate someone to locate contractor and route them to the fault with backhoe and plow in tow.
5. Designate people as needed to begin gathering needed materials and load in the Fiber Optic Splicing Trailer (these should be the same people needed on-site for the actual repair):
 - a. Cable consistent with cut cable(s)
 - b. Cable plow
 - c. Fiber optic splicing kits (2)
 - d. Pedestals – 2-BD5's (fiber) and 2-4 BD4's to accommodate copper
 - e. Ground rods
 - f. Traffic signs and paddles
 - g. Generators, lights and gas (if applicable)
 - h. Water cooler and clean water

- i. Waste receptacles (for discarded fiber wastes)
 - j. Tents (if applicable)
 - k. Staking sheets – plow sheets if available
6. Notify Sheriff's Department of location and scope of problem.

At the Fiber/Cable Fault Site

1. Secure the area
 - a. Put traffic control procedures into effect.
 - b. Remove all unnecessary vehicles and personnel from the area.
2. Remember... Assuming everything went okay, the fiber traffic has, by now, been rerouted. The priority now is the copper (if damaged).
3. Put the backhoe to work digging back the copper on both sides of the fault and opening a ditch between what will become cut-in pedestals.
4. Now begin to assess the best way to restore the fiber.
5. Remember. It is going to be well worth the extra cable to try to get back to an existing splice point (within reason):
 - a. One end of the cable will already be prepared to splice
 - b. It will save a splice on the loss budget
 - (1) This will be one less splice point to eventually cause problems
6. Fiber splice points should be no closer than 700 feet of each other.

EWSD Alarm System Call Out Procedure

The alarm system will call a predetermined list of individuals, notifying them of any alarms requiring immediate attention. The call out order is as follows:

- 1) Internal office numbers (for notification during working hours)
- 2) Central office tech's home phone number
- 3) Management's home phone number

When receiving a call from the alarm system, the following message will be heard:

“Hello, this is 745-0099. The temperature is 72 degrees. The electricity is on/off. Critical/major alarm Floyd, VA EWSD. “Please acknowledge,” dial “555” to stop the system from calling. It is the responsibility of the person who halts the alarm system to either respond to the alarm or contact someone else to respond.

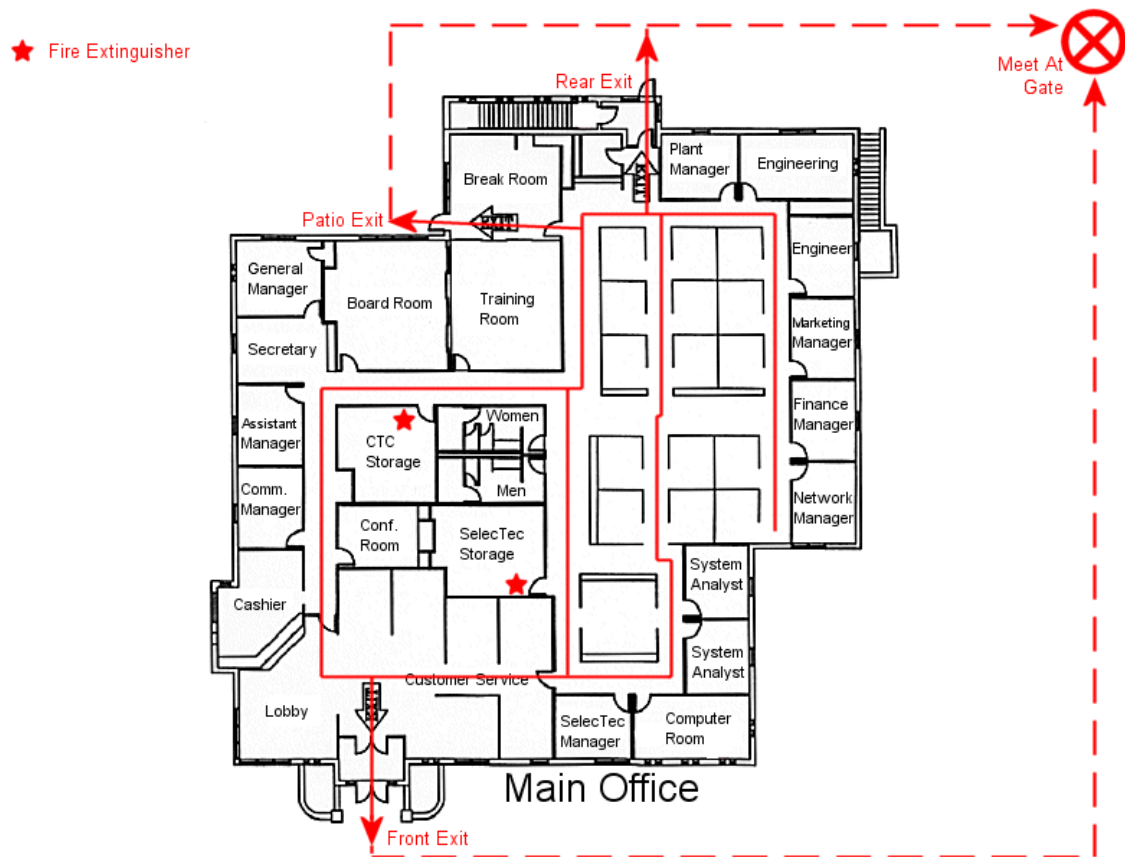
Upon receiving an alarm, the called person can disable the alarm system by dialing 745-0099. When the system asks, “Please acknowledge,” dial “555” to stop the system from calling. It is the responsibility of the person who halts the alarm system to either respond to the alarm or contact someone else to respond.

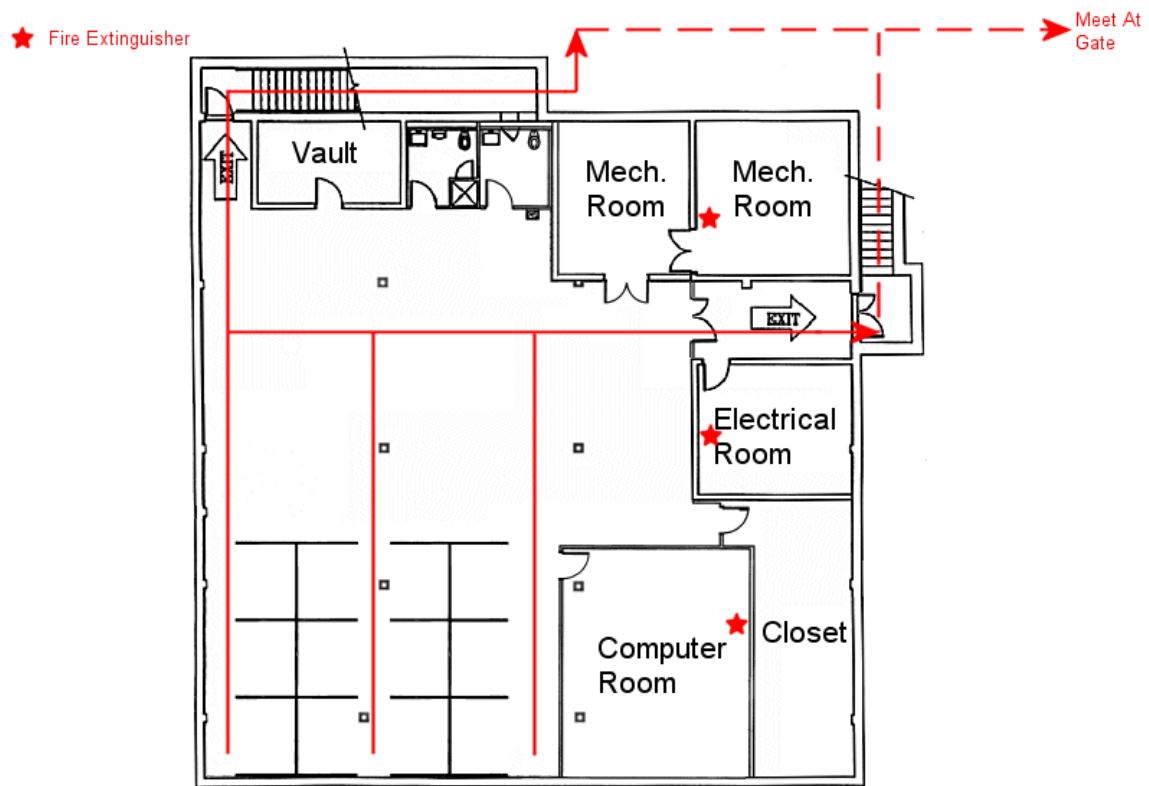
Main Building Alarm System Contact List

The Main Building Alarm system monitors the following alarms.

- 1) Sprinkler Alarm (Main Building)
- 2) Sprinkler Alarm (Warehouse)
- 3) Fire Alarm (Central Office)
- 4) Generator Alarm (Main Building and Central Office Generators)
- 5) UPS System Fault
- 6) Boiler Alarm
- 7) Chiller Alarm

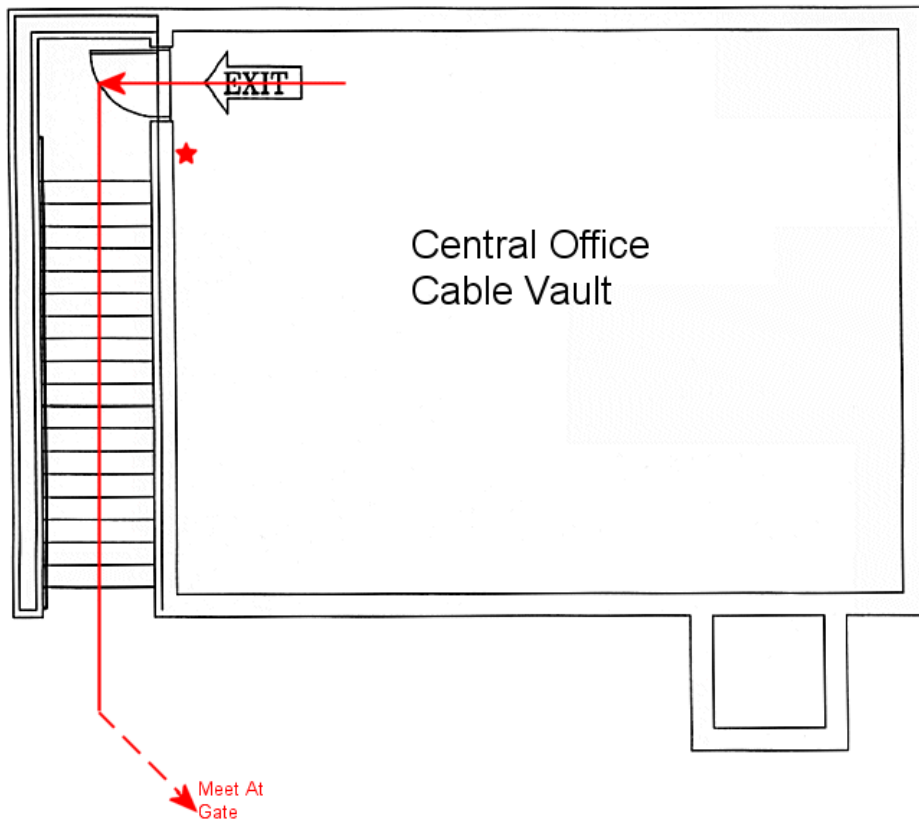
Emergency Evacuation Plan



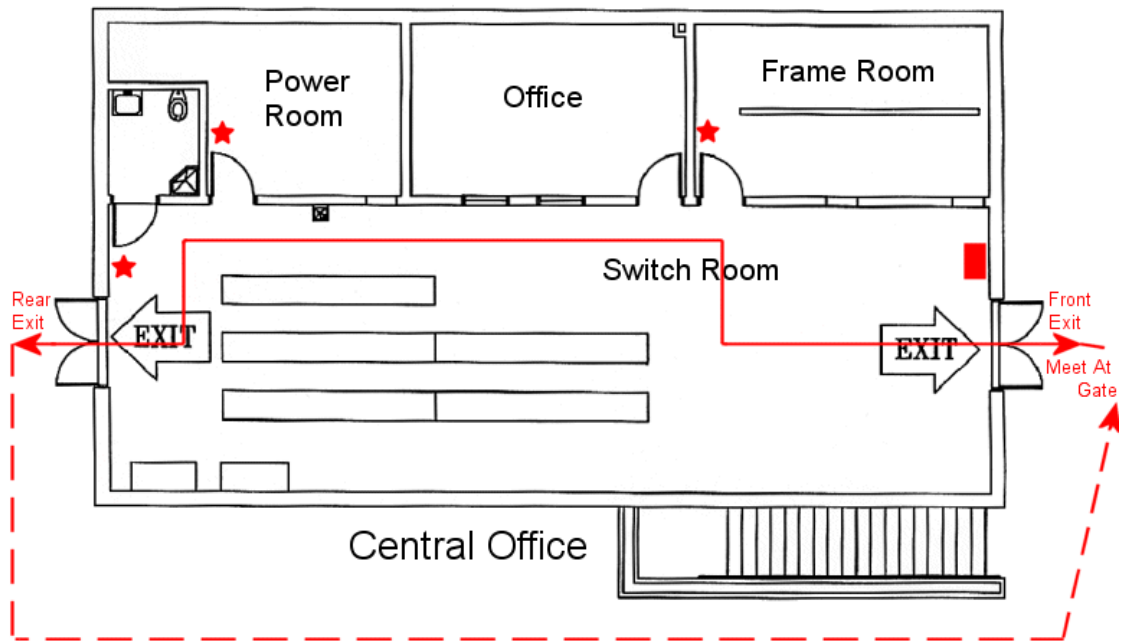


Main Office Basement

★ Fire Extinguisher



- ★ Fire Extinguisher
- FM-200 Control Panel



★ Fire Extinguisher

